

BATTUS POLYDAMAS (PAPILIONIDAE) ON BARBADOS, WEST INDIES

Additional key words: distribution, deforestation.

Of the 22 species of Papilionidae reported from the West Indies, *Battus polydamas* (L.) is the most widespread and the most subspecifically diverse. The species also occurs on the mainland from North America to northern Argentina (J. F. Emmel, 1975, p. 391, in Howe, W. H. (ed.), *The butterflies of North America*, Doubleday and Co., New York, 633 pp.) and in southern Florida. In the Antilles, there are (or were) 13 endemic subspecies: one on each of the Greater Antilles, one in the Bahama Islands, and the remaining eight from Antigua to Grenada in the Lesser Antilles (Riley, N. D., 1975, A field guide to the butterflies of the West Indies, New York Times Book Co., Boston, MA, 224 pp.).

Battus polydamas has also been reported from the island of Barbados. E. J. Pearce (1970, An attempted re-appraisal of the butterflies of Barbados, with reference to certain weather phenomena, J. Barbados Mus. & Hist. Soc. 33:76-84) noted that he had never seen *B. polydamas* on Barbados but commented that it had been included in R. H. Schomburgk's *History of Barbados* (1848), was considered quite rare by H. A. Ballou (1937, Notes upon insects mentioned in Schomburgk's history, J. Barbados Mus. & Hist. Soc. 4:1-4), and was listed by R. W. E. Tucker (1953, Insects of Barbados, J. Barbados Mus. & Hist. Soc. 20:155-181). Pearce (*op. cit.*) also noted that there were no Barbadian specimens in the British Museum (Natural History), a collection where one might logically assume such specimens would be stored.

More recently, R. Pinchon and P. Enrico (1969, Faune des Antilles françaises les Papillons, MM. Ozanne et Cie., Caen, pp. 39-47) had not examined specimens from Barbados but (p. 42) suggested that [translated] they were uncertain as to which subspecies the Barbadian material should be assigned. Riley (*op. cit.*:140) stated that typical *B. polydamas* is "confined to the American mainland, and does not now occur on any of the islands, although it seems to have been present earlier on the island of Barbados." Pinchon and Enrico (*op. cit.*) had studied examples of all of the living Lesser Antillean subspecies of *B. polydamas* (from the islands of Guadeloupe, Dominica, Martinique, St. Vincent, and Grenada) but none from Barbados, even though they had spent four days on that island and collected 17 species of butterflies (p. 33). Thus, the status (extant or extinct) and subspecific designation of the Barbadian population remained equivocal.

Donald W. Buden, while studying birds on Barbados on 15-18 July 1988 generously agreed to make a collection of butterflies on my behalf, as his own research allowed. His collection, numbering 112 specimens, contained one *B. polydamas*. The specimen was taken on 17 July 1988 at Turner's Hall Woods, St. Andrew Parish, Barbados. One other individual was seen at the same locality but not collected. The butterflies were at the margin of and within the woods. Thus, *B. polydamas* does occur on Barbados, although it is probably present only locally and thus easily overlooked. Since the birds that Buden was studying are forest-dwelling, he travelled the island looking for the appropriate habitat (woods) for them. Coincidentally, such wooded areas are favored by local *B. polydamas*.

The localization of *B. polydamas* probably is due to the immense deforestation of Barbados, first settled in 1627; sugarcane is the primary cultivation. Except for areas that cannot be cultivated conveniently (such as some of the ravines and steep or rocky slopes, which retain woods or woods-remnants), the vista on Barbados is of endless waving fields of sugarcane.

The Barbados female (forewing length 51 mm) does not agree in appearance with specimens of any of the Lesser Antillean or Greater Antillean subspecies. The only remaining subspecies is the South American *B. p. polydamas*, with which the Barbados individual does agree in detail. The fresh condition of the Barbados female precludes the possibility of its having been blown or having flown to the island from the mainland (a distance of about 280 km). Thus, I consider the resident population to be *Battus polydamas polydamas* (L.).

I thank Frederick H. Rindge, Dept. of Entomology, American Museum of Natural History, for his assistance with finding pertinent literature, Susan Borkin and Allen M. Young, Milwaukee Public Museum, for the loan of specimens, and Donald W. Buden for collecting specimens on Barbados.

ALBERT SCHWARTZ, 10000 S.W. 84 St., Miami, Florida 33173.

Received for publication 29 November 1988; revised and accepted 10 September 1990.